



Introduction to Programming and Logic

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Introduction to Programming and Logic

- ▶ Understanding the basic methods and concepts of problem-solving
- ▶ Applying these methods to a programming language (C#)
- ▶ Focus on logic and critical thinking as it pertains to the problem-solving process
- ▶ Introduction to standard design tools, such as flowcharts and pseudocode

Syllabus Overview

- ▶ Course Objectives
- ▶ Course Requirements
- ▶ Course Schedule
- ▶ Evaluation
- ▶ Attendance Policy
- ▶ Makeup Policy
- ▶ Deadline Policy
- ▶ Classroom Rules

Syllabus Overview

- ▶ Course Objectives
 - ▶ Basic methods and concepts of problem solving.
 - ▶ Use, name, and assign names to variables.
 - ▶ Build structured methods.
 - ▶ Sequences, Decisions, and Loops.
 - ▶ Control loops with variables, counters, and sentinel values.

Syllabus Overview

- ▶ Course Objectives
 - ▶ Nest loops.
 - ▶ Set up, manipulate, and search arrays.
 - ▶ Program Development Cycle.
 - ▶ Analysis and design tools: flowcharts, pseudocode and hierarchy charts.
 - ▶ Object oriented programs: objects, events, methods, properties.

Syllabus Overview

- ▶ Course Requirements
 - ▶ Attend Class
 - ▶ Complete Assignments
 - ▶ Pass Exams and Quizzes

- ▶ Class Time will be given to work on programming projects, but you will also be required to spend time outside of class to complete these assignments

Syllabus Overview

- ▶ Course Details

- ▶ 12 week with 5 class periods per week

- ▶ You will need a flash drive, laptop or cloud storage for your work – or you must store your files on your U: drive

Syllabus Overview

▶ Course Details

- ▶ No book but there will be reading assignments and quizzes based on the reading assignments.
- ▶ Courseweb will be used for assignments. All classroom material will be uploaded to Courseweb and all assignments submitted on Courseweb unless otherwise instructed.

Syllabus Overview

- ▶ Evaluation
- ▶ The final grade for the class will be calculated using the following weighted assignments:

Tests	30%
Projects	40%
Homework	20%
Attendance / Participation	10%

Syllabus Overview

- ▶ Attendance Policy
 - ▶ Workplace model - Two personal days
 - ▶ Responsible for missed work
 - ▶ Attendance will count as 10% of your grade
 - ▶ **Email me if you are going to be absent – severhart@southhills.edu**

Syllabus Overview

Official Makeup / Deadline policy

- ▶ Assignments are due at the beginning of class on the date due unless we are using class time to complete
- ▶ Late Assignments – 10% grade penalty and only accepted after one day
- ▶ Make-up Tests only if you have notified me IN ADVANCE of your absence – otherwise you get a zero

NOTE: I usually try to take circumstances into consideration with these policies but if I feel you are taking advantage I will enforce these policies. Talk to me if you are having issues.

Syllabus Overview

Class Rules

- ▶ Limit use of cell phones
- ▶ Treat all members of the class with respect
- ▶ Participate in class discussions – participation is part of your attendance grade
- ▶ Be positive because businesses don't like bad attitudes.

Syllabus Overview

Class Rules

- ▶ Work as hard as you can to learn the material presented... I am going to work as hard as I can to educate.
 - ▶ These are not the same - I cannot learn for you, I can only present material in a way that you can take it and learn from it yourself.
- ▶ **Be Professional – you are here to prepare for a career. Your classes are your job. Give your best effort.**

Class Expectations

Nobody (including me) knows everything

- ▶ Do not be afraid to ask questions.
- ▶ If you are not getting it, I guarantee someone else in the class isn't getting it either.
- ▶ Maybe I can explain it differently – so ask!!

Class Expectations

- ▶ It is common practice in the industry to collaborate.
- ▶ Google and StackOverflow can be your friend when you don't know how to do something.
- ▶ You may use information and code examples that you find on the internet – **However** – you **must** cite it in the comments **and** I expect you to understand what the code is doing.
- ▶ You should try to stick to constructs learned in class.

Class Expectations

- ▶ Programming requires you to think about problems in a way that may not be natural to some of you.
- ▶ This class is about learning concepts that can be utilized in any programming language, although we will use C#.

Class Expectations

- ▶ If you are struggling with the concepts early on, let me know and we will look for some help.
- ▶ Even if you pursue the Networking Emphasis, you are required to earn a 70% in this course. Systems Admins and Networking professionals need to understand these concepts as part of their jobs and will likely be required to write scripts to perform system tasks.

About Me

- ▶ Sharyn Everhart
- ▶ **severhart@southhills.edu**
- ▶ B.S in Computer Science, Juniata College
- ▶ Additional programming classes at Penn State
- ▶ Web design and web programming classes here at South Hills
- ▶ Fourth year teaching at South Hills – Adjunct Instructor
- ▶ Currently working as a web/mobile app programmer/developer
- ▶ Prior experience of 20+ years as a software engineer in a corporate environment

About you...